## **ABSTRACT**

A system is described that includes a real-time routing server to route and process multimedia sessions over a network. The system also includes a group server to manage the multimedia communications sessions over the network. The group server is coupled to the routing server. The system further includes a plurality of end-point processing devices to schedule and conduct multimedia communications sessions over the network. The plurality of end-point processing devices are coupled to the routing server and the group server. Protocols determine the topology of the network, reserve bandwidth, reserve media processing resources, and find the best route and the best real-time routing server to transfer and process multimedia data.